

## ABSTRACT

In accordance with the invention, a high-resolution variable optical delay line comprises an optical switch, such as an optical micromechanical mirror switch, and an array of delay fiber paths. Each delay fiber path in the array comprises a region where the fiber is curved differently from the other fibers in the region and a reflector. Each fiber path advantageously comprises other regions where the fiber is essentially parallel to the other fibers in the region. Each fiber is curved differently from the others in order that the fiber paths each provide a different delay.